UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,938	09/05/2003	Yoshihiro Hara	15162/06150	7008

24367 7590 12/22/2004

SIDLEY AUSTIN BROWN & WOOD LLP
717 NORTH HARWOOD
SUITE 3400
DALLAS, TX 75201

EXAMINER	
PERKEY, WILLIAM B	

ART UNIT	PAPER NUMBER
2851	

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/655,938	HARA, YOSHIHIRO	
	Examiner	Art Unit	
	William B. Perkey	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the image sensor and shake correcting section including an image processor for processing the image data of the image sensor of claim 15 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the app22lication. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 10 and 11 are objected to because of the following informalities: there is no proper antecedent basis in the claims for the horizontal and vertical direction shake detection sensors of claim 10. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiomi (U.S. Patent No. 5,619,030).

Shiomi, in the first embodiment, discloses a first shake detecting section that includes the x direction or yaw direction using the gyro type angular velocity sensor 2 disclosed in column 3 lines 20-45; a second shake detecting section that includes the two dimensional area sensor under V drive detecting shake in the y direction or pitch direction at column 3 lines 58-60; and a shake correcting section as blocks 16-19 for both the x and y directions. The first shake detecting section including the gyro type angular velocity sensor 2 shown in Fig. 1 of Shiomi and the second shake detecting section that includes the two dimensional area sensor 6, have different image blur detection frequency characteristics. Thus, their detection characteristics are different. Thus, claims 1-3 are fully met by Shiomi. As, disclosed by Shiomi, the detection precision of the second shake detecting section (that uses the two dimensional area sensor) is higher than that

of the angular velocity sensor for at least some frequencies of the image blur. Thus, the limitations of claims 4, 7 and 8 are fully met by Shiomi. The angular velocity sensor of Shiomi inherently varies its performance with temperature in a manner that the two dimensional area sensor does not. The limitations of claim 5 are fully met by Shiomi. The driving frequency of an image sensor and a gyro type angular velocity sensor are inherently different. Thus, claims 6 and 9 aremet by Shiomi. Shiomi shows an image sensor 6 and an image processor 10. Thus, claim 15 is fully met.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiomi (U.S. Patent No. 5,619,030) in view of Sato (U.S. Patent No. 5,861,915).

Shiomi shows the claimed invention, as explained above, except for a temperature sensor and an output signal correcting section. Sato et al. teaches that a shake compensation device using angular velocity sensors should be provide with a temperature sensor 41 and an output signal correcting section 5 to correct the outputs from the angular velocity sensor. Sato et al. also discloses the use of look up tables for the temperature correction. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to provide the device of Shiomi with a temperature sensor and an output signal correcting section, using look

up tables in order to obtain the desirable feature of obtaining better performance of the shake compensation. Thus claims 10-13 are obvious from the prior art considered as a whole.

Response to Arguments

7. Applicant's arguments filed November 9, 2004 have been fully considered but they are not persuasive. Applicant's summary of the operation in the Shiomi first embodiment is correct. Applicant's are also correct in that the x and y signals or pitch and roll signals are never combined. Applicant argues that the claims patentably distinguish over the reference Shiomi because the x and y signals are combined. Applicant's are reading too much into the claim language of the shake correcting section set forth in independent claims 1 and 7. The claim language does not specify that the x and y signals from the sensors are combined. The claim only requires that the shake correcting section corrects the shake based on the outputs of from the first and second detecting sections. A shake correcting section that includes a sub-section for the x direction and a sub-section for the y direction can reasonably be said to meet the limitation that the shake correcting section corrects the shake based on the outputs of the first and second detecting sections, even though the outputs are not combined. (As an aside, it is interesting to note that applicant's fail to point out where in the original detailed description and drawings these two signals are disclosed as combined together. Upon reviewing the original disclosure, the examiner could not find anywhere in the written description where the x and y signals are combined. Applicant's own originally disclosed support for the shake correcting section appears to be the sub-section for correction in the x direction using only the x direction sensor signal and not the y direction signal and the sub-section for the correction in the y direction using only the y direction and not the x direction signal.)

8. Applicant in their response does not even address the issue of not illustrating the limitations of claim 15 and the objection to claims 10 and 11 concerning the lack of antecedent claim basis for horizontal and vertical direction shake detecting sensors.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

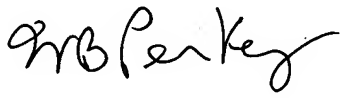
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone Numbers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William B. Perkey whose telephone number is (571) 272-2126. The examiner can normally be reached on Monday-Thursday 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William B. Perkey
Primary Examiner
Art Unit 2851

WBP:wbp